

## **REMARKS**

Claims 1-25 are pending and have been rejected. Applicants have cancelled claims 21-25 without prejudice and respectfully submit that claims 1-20 are in condition for allowance.

### **Claim Rejections – 35 U.S.C. § 112**

Claims 21-25 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Applicants have cancelled claims 21-25 without prejudice. The rejection under 35 U.S.C. § 112, first paragraph, is thus now moot.

### **Claim Rejections – 35 U.S.C. § 103(a)**

Claims 1-20 stand, and 21-25 are, rejected under 35 U.S.C. § 103(a) as being unpatentable over *Mullin* (U.S. Patent 3,326,827). Applicants have cancelled claims 21-25 without prejudice and respectfully traverse the rejection with respect to claims 1-20.

Applicants reiterate their arguments advanced in the Amendments filed on 5 September 2008 and 31 December 2007 with regard to *Mullin* and incorporate those arguments herein by reference. Applicants also respectfully re-submit the Declaration by Dr. Ping-Lin Kuo, the first-named inventor of the present application. The declaration was objected to for an erroneous recitation 28 U.S.C. § 1746. The re-submitted declaration is believed to be compliant with statutory requirements. Applicants respectfully request the consideration of the Declaration on its merits.

As the Applicants have previously stated, *Mullin* is in a nonanalogous, remotely related art area, i.e., use of epoxidized vegetable oil, a commonly used plasticizer, as a dispersant. In other words, the epoxidized vegetable oil is used to help the TiO<sub>2</sub> pigment to be dispersed in vinyl resin matrix (see, column 1, lines 38-46 and lines 66-69 of *Mullin*) as opposed to the claimed invention, in which a very fine pigment particle can be advantageously obtained as manifested in the example in the Declaration. As such, the claimed invention is patentably distinct from *Mullin*.

Furthermore, Applicants respectfully submit that the "elevated temperature" feature is not obvious as the Examiner suggests, and that *Mullin* in fact teaches away from the claimed invention. As pointed out by Dr. Kuo in his Supplemental Declaration Under 37 C.F.R. § 1.132, respectfully submitted herewith, as a highly volatilizing solvent and a good drying agent as

acetone is, it would immediately vaporize in ambient atmosphere so that dried epoxide-treated  $\text{TiO}_2$  can be straightforwardly and quickly obtained without heating. In fact, acetone, which is commonly used as a solvent, would impose hazard to the user because of its extreme flammability. For example, as acetone's flash point is  $-20^\circ\text{C}$ , an air mixtures of between 2.5% to 12.8% acetone by volume may explode or cause fire if the temperature is higher than  $-20^\circ\text{C}$ . See, for example, the article "Acetone" of Wikipedia under the section "Safety" (<http://en.wikipedia.org/wiki/Acetone>, as accessed on 22 January 2009). Therefore, any skilled person in the art would take caution not to use any heating means if he intends to use acetone as a solvent for the mixture. As further demonstrated by the experiment described in Dr. Kuo in the Supplemental Declaration, acetone completely dries without heating during the process of milling  $\text{TiO}_2$ . These examples are consistent with *Mullin*, for example in Example 1, described at column 4 (which is relied upon by the Examiner). Thus, combining *Mullin* with drying by heating would not predictably lead to the claimed invention. To the contrary, to the extent that the result of such a combination is predictable, the prediction would lead one of ordinary skill in the art to avoid using such a combination.

The disclosure in *Mullin* thus teaches away from the use of heating for both safety reasons and lack of necessity. Applicants therefore respectfully submit that *Mullin* does not render claims 1-20 obvious.

#### **Declaration under 37 C.F.R. § 1.132**

The declaration was objected to for an erroneous recitation 28 U.S.C. § 1746. Applicants respectfully re-submit the Declaration by Dr. Ping-Lin Kuo, the first-named inventor of the present application. The re-submitted declaration is believed to be compliant with statutory requirements.

Summary

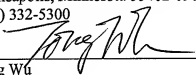
In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.



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Respectfully submitted,

MERCHANT & GOULD P.C.  
P.O. Box 2903  
Minneapolis, Minnesota 55402-0903  
(612) 332-5300

  
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Tong Wu  
Reg. No. 43,361  
TW/cjc